

Question 1

On a home network, which device is most likely to provide dynamic IPv4 addressing to clients on the home network?

- a dedicated file server
- **a home router**
- an ISP DHCP server
- a DNS server

Explanation: On a home network, a home router usually serves as the DHCP server. The home router is responsible for dynamically assigning IPv4 addresses to clients on the home network. ISPs also use DHCP, but it usually assigns an IPv4 address to the Internet interface of the home router, not the clients on the home network. In businesses, it is common to have a file or other dedicated server provide DHCP services to the network. Finally, a DNS server is responsible for finding the IP address for a URL, not for providing dynamic addressing to network clients.

Question 2

What part of the URL, <http://www.cisco.com/index.html>, represents the top-level DNS domain?

- **.com**
- www
- http
- index

Explanation: The components of the URL <http://www.cisco.com/index.htm> are as follows:

http = protocol

www = part of the server name

cisco = part of the domain name

com = the top-level domain

index = file name

html = hypertext markup language

Question 3

What are two characteristics of the application layer of the TCP/IP model? (Choose two.)

- responsibility for logical addressing
- responsibility for physical addressing
- **the creation and maintenance of dialogue between source and destination applications**
- **is closest to the end user**
- the establishing of window size

Explanation: The application layer of the TCP/IP model is the layer that is closest to the end user, providing the interface between the applications. It is responsible for formatting, compressing, and encrypting data, and is used to create and maintain dialog between source and destination applications.

Question 4

What message type is used by an HTTP client to request data from a web server?

- **GET**
- POST
- PUT
- ACK

Explanation: HTTP clients send GET messages to request data from web servers.

Question 5

Which protocol can be used to transfer messages from an email server to an email client?

- SMTP
- **POP3**
- SNMP
- HTTP

Explanation: SMTP is used to send mail from the client to the server but POP3 is used to download mail from the server to the client. HTTP and SNMP are protocols that are unrelated to email.

Question 6

Which application layer protocol is used to provide file-sharing and print services to Microsoft applications?

- HTTP
- SMTP
- DHCP
- **SMB**

Explanation: SMB is used in Microsoft networking for file-sharing and print services. The Linux operating system provides a method of sharing resources with Microsoft networks by using a version of SMB called SAMBA.

Question 7

Which three protocols or standards are used at the application layer of the TCP/IP model? (Choose three.)

- TCP
- **HTTP**
- **MPEG**
- **GIF**
- IP
- UDP

Explanation: HTTP, MPEG, and GIF operate at the application layer of the TCP/IP model. TCP and UDP operate at the transport layer. IP operates at the internet layer.

Question 8

Why is DHCP preferred for use on large networks?

- Large networks send more requests for domain to IP address resolution than do smaller networks.
- DHCP uses a reliable transport layer protocol.
- It prevents sharing of files that are copyrighted.
- **It is a more efficient way to manage IP addresses than static address assignment.**
- Hosts on large networks require more IP addressing configuration settings than hosts on small networks.

Explanation: Static IP address assignment requires personnel to configure each network host with addresses manually. Large

networks can change frequently and have many more hosts to configure than do small networks. DHCP provides a much more efficient means of configuring and managing IP addresses on large networks than does static address assignment.

Question 9

An author is uploading one chapter document from a personal computer to a file server of a book publisher. What role is the personal computer assuming in this network model?

- **client**
- master
- server
- slave
- transient

Explanation: In the client/server network model, a network device assumes the role of server in order to provide a particular service such as file transfer and storage. The device requesting the service assumes the role of client. In the client/server network model, a dedicated server does not have to be used, but if one is present, the network model being used is the client/server model. In contrast, the peer-to-peer network model does not have a dedicated server.

Question 10

Which statement is true about FTP?

- The client can choose if FTP is going to establish one or two connections with the server.
- **The client can download data from or upload data to the server.**
- FTP is a peer-to-peer application.
- FTP does not provide reliability during data transmission.

Explanation: FTP is a client/server protocol. FTP requires two connections between the client and the server and uses TCP to provide reliable connections. With FTP, data transfer can happen in either direction. The client can download (pull) data from the server or upload (push) data to the server.

Question 11

A wireless host needs to request an IP address. What protocol would be used to process the request?

- FTP
- HTTP
- **DHCP**
- ICMP
- SNMP

Explanation: The DHCP protocol is used to request, issue, and manage IP addressing information. CSMA/CD is the access method used with wired Ethernet. ICMP is used to test connectivity. SNMP is used with network management and FTP is used for file transfer.

Question 12

Which TCP/IP model layer is closest to the end user?

- **application**
- internet
- network access
- transport

Explanation: End users use applications to interact with and use the network. The application layer of the TCP/IP model is closest to the end user. Application layer protocols are used to communicate and exchange messages with other network devices and applications. The layers of the TCP/IP model are from top to bottom (memory aid - ATIN): application, transport, internet, network access

Question 13

When retrieving email messages, which protocol allows for easy, centralized storage and backup of emails that would be desirable for a small- to medium-sized business?

- **IMAP**
- POP
- SMTP
- HTTPS

Explanation: IMAP is preferred for small-to medium-sized businesses as IMAP allows centralized storage and backup of emails, with copies of the emails being forwarded to clients. POP delivers the emails to

the clients and deletes them on the email server. SMTP is used to send emails and not to receive them. HTTPS is not used for secure web browsing.

Question 14

Which protocol uses encryption?

- DHCP
- DNS
- FTP
- **HTTPS**

Explanation: HTTPS uses Secure Socket Layer (SSL) to encrypt traffic accessed from a web server.

Question 15

Which two tasks can be performed by a local DNS server? (Choose two.)

- providing IP addresses to local hosts
- allowing data transfer between two network devices
- **mapping name-to-IP addresses for internal hosts**
- **forwarding name resolution requests between servers**
- retrieving email messages

Explanation: Two important functions of DNS are to (1) provide IP addresses for domain names such as <http://www.cisco.com>, and (2) forward requests that cannot be resolved to other servers in order to provide domain name to IP address translation. DHCP provides IP addressing information to local devices. A file transfer protocol such as FTP, SFTP, or TFTP provides file sharing services. IMAP or POP can be used to retrieve an email message from a server.

100%

You have scored **100%**.

Congratulations, you have passed the exam.

Reset

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